

## **CLAIMS**

### **We claim:**

1. A prosthetic foot comprising a forefoot portion, a midfoot portion and a hindfoot portion, said hindfoot portion including an ankle joint permitting closed kinetic chain motion of the prosthetic foot in gait, said ankle joint having a joint axis oriented for permitting motion of said hindfoot portion about said ankle joint axis which is at least primarily in the sagittal plane, said ankle joint being formed integrally with said hindfoot portion by a strut of resilient material of said hindfoot portion, wherein a hole extends through said hindfoot portion along an anterior side of said strut of said ankle joint and wherein the hindfoot portion anterior to said hole includes a gap to permit said motion of said hindfoot portion about said ankle joint axis.

2. The prosthetic foot according to claim 1, wherein said strut is elongated in the direction of the ankle joint axis.

3. The prosthetic foot according to claim 1, wherein anterior and posterior side surfaces of said strut of said ankle joint are concavely curved for transferring and absorbing forces in motion of said hindfoot portion about said ankle joint axis.

4. The prosthetic foot according to claim 1, wherein the height of said gap is selected so that a lower surface of said hindfoot portion defining

said gap acts as a stop against an opposing upper surface defining said gap to limit the amount of said motion of said hindfoot portion about said ankle joint axis in dorsiflexion.

5. The prosthetic foot according to claim 1, wherein said hole extends in a direction parallel to said joint axis of said ankle joint.

6. An ankle apparatus which can be attached to a prosthetic foot to form part of a hindfoot portion thereof, the ankle apparatus comprising an ankle joint which, when the ankle apparatus is attached to a prosthetic foot, permits closed kinetic chain motion of the prosthetic foot in gait, the ankle joint having a joint axis oriented for permitting motion of the hindfoot portion about the ankle joint axis which is at least primarily in the sagittal plane, wherein the ankle joint is formed by a strut of resilient material of the ankle apparatus, wherein a hole extends through said hindfoot portion along an anterior side of said strut of said ankle joint and wherein the hindfoot portion anterior to said hole includes a gap to permit said motion of said hindfoot portion about said ankle joint axis.

7. The ankle apparatus according to claim 6, wherein said strut is elongated in the direction of the ankle joint axis.

8. The ankle apparatus according to claim 6, wherein anterior and posterior side surfaces of said strut of said ankle joint are concavely curved

for transferring and absorbing forces in motion of said hindfoot portion about said ankle joint axis.

9. The ankle apparatus according to claim 6, wherein the height of said gap is selected so that a lower surface of said hindfoot portion defining said gap acts as a stop against an opposing upper surface defining said gap to limit the amount of said motion of said hindfoot portion about said ankle joint axis in dorsiflexion.

10. The ankle apparatus according to claim 6, wherein said hole extends in a direction parallel to said joint axis of said ankle joint.

11. In a prosthetic foot comprising a foot keel extending in a longitudinal direction of the foot and a cosmetic covering about the foot keel, the improvement comprising an ankle apparatus attached to an upper surface of the foot keel to form part of a hindfoot portion of the prosthetic foot, the ankle apparatus comprising an ankle joint which permits closed kinetic chain motion of the prosthetic foot in gait, the ankle joint having a joint axis oriented for permitting motion of the hindfoot portion about the ankle joint axis which is at least primarily in the sagittal plane, wherein the ankle joint is formed by a strut of resilient material of the ankle apparatus, wherein a hole extends through said hindfoot portion along an anterior side of said strut of said ankle joint and wherein the hindfoot portion anterior to said hole includes a gap to permit said motion of said hindfoot portion about said ankle joint axis.

12. The prosthetic foot according to claim 11, wherein said strut is elongated in the direction of the ankle joint axis.

13. The prosthetic foot according to claim 11, wherein anterior and posterior side surfaces of said strut of said ankle joint are concavely curved for transferring and absorbing forces in motion of said hindfoot portion about said ankle joint axis.

14. The prosthetic foot according to claim 11, wherein the height of said gap is selected so that a lower surface of said hindfoot portion defining said gap acts as a stop against an opposing upper surface defining said gap to limit the amount of said motion of said hindfoot portion about said ankle joint axis in dorsiflexion.

15. The prosthetic foot according to claim 11, wherein said hole extends in a direction parallel to said joint axis of said ankle joint.